should exist between changes in the 100-km. region and those in the high stratosphere. It appears that an empirical study of the principal seasonal changes in the daily variation of the field at two or more Observatories separated by a few hours of longitude against seasonal changes in the large-scale stratospheric circulation, such as those described by Teweles and Finger [5], by Teweles, Rothenburg, and Finger [6], and by Finger, Mason, and Corzine [2], might discover relationships between changes occurring in the circulation in the two regions. geomagnetic daily variation by its nature should be responsive to large-scale air movement in the upper region including the prevailing winds. These circumstances suggest that a study of the daily variation of the earth's magnetic field against synoptic charts of the large-scale atmospheric circulation as high in the stratosphere as possible would constitute a research of considerable importance.

REFERENCES

- S. Chapman, "Regular Motions in the Ionosphere: Electric and Magnetic Relationships," Bulletin of the American Meteorological Society, vol. 42, No. 2, Feb. 1961, pp. 85-100.
- F. G. Finger, R. B. Mason, and H. A. Corzine, "Some Features of the Circulation at the 10-mb. Surface July 1958 through June 1959," Monthly Weather Review, vol. 91, No. 5, May 1963, pp. 191-205.
- 3. J. H. Nelson, L. Hurwitz, and D. G. Knapp, "Magnetism of the

- Earth," Coast and Geodetic Survey Publication 40-1, U.S. Department of Commerce, 1962 (see fig. 11, p. 25).
- W. J. Rooney, "Diurnal-Variation Anomalies at Tucson," Terrestrial Magnetism and Atmospheric Electricity, vol. 50, No. 3, Sept. 1945, pp. 175-184.
- S. Teweles and F. G. Finger, "An Abrupt Change in Stratospheric Circulation Beginning in Mid-January 1958,"
 Monthly Weather Review, vol. 86, No. 1, Jan. 1958, pp. 23-28.
- S. Teweles, L. Rothenburg, and F. G. Finger, "The Circulation at the 10-Millibar Constant Pressure Surface over North America and Adjacent Ocean Areas, July 1957 through June 1958," Monthly Weather Review, vol. 88, No. 4, Apr. 1960, pp. 137-150.
- D. van Sabben, "Ionospheric Current Systems Caused by Non-Periodic Winds," Journal of Atmospheric and Terrestrial Physics, vol. 24, Nov. 1962, pp. 959-974.
- 8. E. H. Vestine, "Seasonal Changes in Day-to-Day Variability of Upper Air Winds Near the 100-km. Level of the Atmosphere," Transactions of the American Geophysical Union, vol. 39, No. 2, Apr. 1958, pp. 213-223.
- E. H. Vestine, L. Laporte, I. Lange, and W. E. Scott, "The Geomagnetic Field, Its Description and Analysis," Chapt. VII in *Publication 580*, Carnegie Institution of Washington, 1947.
- O. R. Wulf, "A Possible Atmospheric Solar Effect in Both Geomagnetism and Atmospheric Electricity," Terrestrial Magnetism and Atmospheric Electricity, vol. 51, No. 1, Mar. 1946, pp. 85-87.
- O. R. Wulf, "A Possible Effect of Atmospheric Circulation in the Daily Variation of the Earth's Magnetic Field," Monthly Weather Review, vol. 91, Nos. 10-12, Oct.-Dec. 1963, pp. 520-526.

[Received June 19, 1964]

CORRECTION

Vol. 93, No. 1, January 1965:

p. 23, equation (A2): right side should be multiplied by $1/\Delta^2$.

p. 24, equations (A6) and (A7): Insert the number 2 before ij and kl respectively in the second term of the second parenthesis of each equation

p. 24, The first sentence following (A7) should read: "Upon substitution of (A6) and (A7) into (A2) and equating coefficients of terms to the second order in Δ with those of the analytic Jacobian, a new relation"

p. 24, equation (A8): right side should be 1/4.